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PATENT APPLN. NO. 10/786,594  
RESPONSE UNDER 37 C.F.R. §1.111

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REMARKS

The specification has been amended to correct the minor informalities noted in the Action.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (U.S. Patent No. 4,578,327) (hereinafter: "Saito") in view of Shoji et al. (U.S. Patent No. 5,650,244) (hereinafter: "Shoji").

Saito is cited as disclosing a nonaqueous electrolyte battery comprising a positive electrode which includes a carbon fluoride as an active material and a negative electrode which can be an alkaline earth metal such as calcium (Col. 5, lines 10-19). Saito does not disclose that the electrolyte can include an imide salt of calcium or a sulfonic acid salt of calcium. Shoji is cited as disclosing a nonaqueous electrolyte battery comprising a nonaqueous electrolyte with at least one calcium salt. The calcium salts disclosed as being useful in the invention of Shoji include an imide salt of calcium or a sulfonic acid salt of calcium.

The Office's position is that it would have been obvious to use the electrolyte of Shoji in the battery of Saito because Shoji teaches "imide salt of calcium or a sulfonic acid salt of calcium that would have suppressed the reaction (self-discharge) of the

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electrolyte, thereby improving the storage stability". (Action,  
page 3, lines 5-7).

Applicants respectfully submit that the rejection is improper because a person of ordinary skill in the art could not have reasonably predicted the results of using the electrolyte of Shoji in the battery of Saito. The battery of Shoji uses a negative electrode with lithium as the active material and a positive electrode in which the active material is exemplified by metal oxides and metal sulfides that contain at least one transition metal selected from manganese, cobalt, nickel, vanadium, iron and niobium.

There is nothing in the prior art to suggest and the Office has not shown by proper evidence or reasoning that the results obtained by Shoji using a nonaqueous electrolyte containing a calcium salt in a battery in which the negative electrode includes lithium as an active material and the positive electrode is limited as described above would be expected to be obtained in the battery of Saito in which the positive electrode includes a carbon fluoride as an active material and the negative electrode includes calcium as an active material.

Claims 7 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Roche et al. (U.S. Patent No. 3,980,495) (hereinafter: "Roche").

This rejection has been overcome by amending claim 7 to include the limitation of claim 8 which is not included in the rejection.

Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roche as applied to claim 7 above, and further in view of Shoji.

The comments above relating to the 35 U.S.C. § 103(a) rejection of claims 1-6 apply also to the rejection of claims 8-12. There is nothing in the prior art to suggest and the Office has not shown by proper evidence or reasoning that the results obtained by Shoji using a nonaqueous electrolyte containing an imide salt or sulfonic acid salt of calcium in a battery in which the negative electrode includes lithium as an active material and the positive electrode is limited as described above would be expected to be obtained in the battery of Roche in which the positive electrode includes sulfur as an active material and the negative electrode includes calcium as an active material.

In the absence of a proper showing by the Office that a person of ordinary skill in the art would have reasonably predicted that

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the results obtained using a nonaqueous electrolyte containing an imide salt or sulfonic acid salt of calcium in the battery of Shoji would be obtained when using the electrolyte in the batteries of Saito and Roche, the 35 U.S.C. § 103(a) rejections are not proper and should be removed.

Removal of the rejections of the claims is believed to be in order and is respectfully requested.

In the initialed Form PTO-1449 from the IDS filed February 26, 2004, returned to applicants with the present Action, document FB, JP 2002-75446 A, has not been initialed to indicate that it has been considered by the Office. The document and English abstract are available in the Image File Wrapper of the present application. Applicants respectfully request that the Office consider the document and return an initialed Form PTO-1449 to indicate that the document has been considered. For the convenience of the Office, attached hereto is a Form PTO-1449 identifying document FB.

The foregoing is believed to be a complete and proper response to the Office Action dated April 4, 2006, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

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In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

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Attachments: Form PTO-1449